Amendment to the Claims

1. (Currently amended) A method for a location determination, comprising:

Acquiring a first positioning signal;

Using a parametric model based on phase values of the first positioning signal and a clock signal acceleration ~~analyzing the first positioning signal~~ to provide an estimate of ~~a~~ the clock signal acceleration;

Acquiring additional positioning signals based on the estimate of the clock signal acceleration; and

Performing the location determination using the first positioning signal and the additional positioning signal.

2. (Original) A method as in claim 1, wherein the additional positioning signals are acquired using a stacking technique.

3. (Original) A method as in claim 1, further comprising validating acquisition of the additional signals.

4. (Original) A method as in claim 1, wherein the first positioning signal is acquired based on a signal-to-noise ratio exceeding a predetermined threshold.

5. (Currently amended) A method as in claim 1, wherein the estimate of the clock signal acceleration is provided using:

dividing the first positioning signal into a plurality of segments;

Estimating a phase value for a time point in each of the segments;

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Fitting the phase values into ~~a~~ the parametric model ~~that depends on the phase values and the clock signal acceleration~~; and

Deriving the clock signal acceleration from the parametric model.

6. (Original) A method as in claim 5, wherein parametric model is based on a constant clock signal acceleration.

7. (Original) A method as in claim 5, wherein the parametric model comprises a parabolic function.

8. (Original) A method as in claim 7, the parabolic function comprises as variables the clock signal acceleration, an initial phase value and a clock Doppler.

9. (Original) A method as in claim 5, wherein each phase value of the segments is estimated based on phase values previously estimated.

10. (Original) A method as in claim 5, wherein each phase value is estimated based on a quadrature correlation function.

11-13. (Canceled)

14. (Currently amended) A system for location determination, comprising:

A GPS receiver front-end integrated circuit that receives a GPS positioning signal and provides a digitized output signal representing the GPS positioning signal;

A non-volatile storage device for storing instruction of a computer program;

A signal processing integrated circuit that receives the digitized output signal of the GPS receiver front-end integrated circuit, retrieves the software program from

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the non-volatile storage device and executes the instructions to perform:

Acquiring a first positioning signal;

Using a parametric model based on phase values of the first positioning signal and a clock signal acceleration ~~analyzing the first positioning signal~~ to provide an estimate of ~~a~~ the clock signal acceleration;

Acquiring additional positioning signals based on the estimate of the clock signal acceleration; and

Performing a location determination using the first positioning signal and the additional positioning signal.

15. (Original) A system as in claim 14, wherein the additional positioning signals are acquired using a stacking technique.

16. (Original) A system as in claim 14, the signal processing integrated circuit further performs validating acquisition of the additional signals.

17. (Original) A system as in claim 14, wherein the first positioning signal is acquired based on a signal-to-noise ratio exceeding a predetermined threshold.

18. (Currently amended) A system as in claim 14, wherein the estimate of the clock signal acceleration is provided using:

Dividing the first positioning signal into a plurality of segments;

Estimating a phase value for a time point in each of the segments;

Fitting the phase values into ~~a~~ the parametric model ~~that depends on the phase~~

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~~values and the clock signal acceleration~~; and

Deriving the clock signal acceleration from the parametric model.

19. (Original) A system as in claim 18, wherein parametric model is based on a constant clock signal acceleration.

20. (Original) A system as in claim 18, wherein the parametric model comprises a parabolic function.

21. (Original) A system as in claim 20, the parabolic function comprises as variables the clock signal acceleration, an initial phase value and a clock Doppler.

22. (Original) A system as in claim 18, wherein each phase value of the segments is estimated based on phase values previously estimated.

23. (Original) A system as in claim 18, wherein each phase value is estimated based on a quadrature correlation function.

24-26. (canceled)

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